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LIST OF
THE DIATOMACÆ
DESCRIBED & FIGURED
IN
FAUNA ARCTICA
AND
DEUTSCHEN TIEFSEE-EX.
AUF DEM DAMPFER "VALDIVIA"
1898–1899.

Valdivia

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Extracts from

Fauna Arctica

der deutschen Expedition in das Nördliche

Eismeer im Jahre 1898.

Dritter Band.

1904.

Die Diatomen der arktischen Meere.

I. Teil: Die Diatomeen des Planktons

— von —

Dr. H. H. Gran.

Gran. D. Plankt 1904.

Diatom Studies Fund 1967 Bot. (Dist.) Bernard Quaritch 36 Ja 53

516. IV. Systematische Liste der arktischen Planktondiatomeen

1. Melosira hyperborea (Grun.) Schütt.

1869. M. arctica, Ehr.
1883 " nummuloides var? hyperborea, Gr. V.N.S. 85/3-4.
1894 Gallionella nummuloides var? hyperborea, de Toni Sy. 1332.
1896 M. hyperborea, Schütt p. 69.
1897 " nummuloides & M. Jurgensii, Van Heurck p. 265, 3/16-18.
1901 Gallionella hyperborea, Jörgensen p. 23

V.N.S. 85/3-4; asa. 162/24; 1900 Grun. p. 52, 3/11-15.

517.

2. Paralia sulcata (Ehr.) Cl.

1840. Gallionella sulcata, Ehr. 3/5.
1844 Melosira sulcata, Kg. p 58; 2/7.
1856 Orthosira marina, W.Sm. II p 59. 53/338.
1863. Paralia marina, Heiberg p 33
1873 " sulcata Cl. p. 7.

S.B.M. l.c. V.N.S. 91/16.

3. Skeletonema costatum (Grev.) Cl.

1866. Melosira costata. Grev. 77. 8/3-6.
1878. Skeletonema costatum, Cl. p. 18.

V.N.S. 91/4.6; asa. 180/45; 1893. Schütt 566. 30/1-2. 1898. Hansen 1/1-7; 1900 Schütt. 482, 12/1-10.

4. Bacterosira fragilis, Gran.

1897b. Lauderia fragilis, Gran 18. 1/12-14.
1900 b. Bacterosira, Gran, p. 114.

5. Thalassiosira nordenskiöldii, Cl.

1866. Thalassiosira nordenskiöldii, Cl. p 6. 2/1.
V. H.S. 83/9, 1897. Van Heurck, 3/20-22; 1897a Gran, 28, 4/59.
1900b Gran. p. 116.

6. Thalassiosira gelatinosa, Hensen.

1887 Thalassiosira gelatinosa, Hensen, p. 87.
1897a Coscinodiscus excentricus v. calcarata, Gran p. 30.
1897 " " " gelatinosa, Cl. p. 25.
1900 Thalassiosira gelatinosa, Jörgensen, p. 15.
1900b " " Gran. p. 116.
1900 Coscinodiscus gelatinosus, Lemmermann, p 377.

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7. Thalassiosira hyalina (Grun) Gran.

1880. Coscinodiscus hyalinus, Gr. Cl & Grun. 113, 7/128.
1897a Thalassiosira elevei, Gran, 29, 4/60-62.
1897b " hyalina, Gran, 4, 1/17-18.

8. Thalassiosira gravida, Cl.

1880. Coscinodiscus subglobosus, Gr. Cl & Gr. 4/19-20.
1896a Thalassiosira gravida, Cl. 12, 2/14-16.
1897a " " Gran. 28, 4/57-58.

9. Thalassiosira subtilis (Ostenf) Gran.

1899. Podosira (?) subtilis, Ostenf., 53.
1900b. Thalassiosira subtilis, Gran, p. 117.
1903. " " Ostenf., 563 f. 119.

10. Thalassiosira bioculata (Grun) Ostenf.

1884 Coscinodiscus bioculatus, Grun. 107, 3/30.
1896a " " Clève 10, 2/3.
1903. Thalassiosira bioculata, Ostenf. p 564, f. 120-121.

1893. Thalassiosira distans, Pouchet. 181, f. 21 C.

1893. Thalassiosira sp. Pouchet. 181. f. 21 B.

11. Coscinosira polychordia, Gran.

1897 g Coscinodiscus polychordus, Gran, 30, 2/23, 4/54.
1900. Thalassiosira polychorda, Jörgensen, p 15.
1900 b. Coscinosira polychorda Gran, 115.

12. Coscinodiscus radiatus Ehr. 1839, 148, 3/1.

1897 a Coscinodiscus radiatus, Cl. p. 23
1902. " " Gran p. 166.

519. 13. Coscinodiscus oculus iridis Eh. 1839. 147. Gran, 1902. 167.

a C. oculus iridis Pl. XVII. 17-19.
b. C. centralis Eh. 1854. 3/12, 18/39.
c. C. concinnus W-Sm. p. 66. Roper. 1858. 20, 3/12.

14. Coscinodiscus curvatulus Grun. asa. 57/33

1884. Coscinodiscus curvatulus, Grun. 83, D f. 11-14.
1895. " " Oestrup. 460, 8/96
1900 c. " " Gran. 55.
1901. " " Jorgensen, p. 23.

520. 15. Coscinodiscus Kützingii a S. asa. 57/17, 18.
var. glacialis Grun. 1884. 84, D f. 16.

Oestrup. 1897. 344; Gran. 1900 c 55; Jorgensen 1901, 23.

16. Coscinodiscus excentricus. Eh 1839. 146.

Coscinodiscus angusto-lineatus a S. asa. 59/34.
" lineatus auth. mi pauc. Eh. 1854, 22/6?
1884. " sublineatus, Grun. 83; D. f. 21, 22.

17. Coscinodiscus stellaris, Roper.

1858. Coscinodiscus stellaris, Roper. 21, 3/3.
1884. " symbolophorus, Grun. p. 82 D. f 3-5.
1894 " subtilis, Cl. in den Tabellen.
1896 b " symbolophorus, Grun. p. 6.
1897 a " stellaris, Cleve. p. 23.

18. Coscinodiscus leptopus, Grun. V.H.S. 131/5-6.
1880 1901. Jörgensen. p. 23.

Coscinodiscus adumbratus Oestrup. 1895; 461. 8/90.
" bathyomphalus Cl. 1883, 489. 38/81 + Oest. 1895; 461. 1897, 345.
" concavus Ehrg (1857/1947); Cl. 1883. 488.
" crassus, Baie v. gelida, Gr. 1884. 74, C/6.
" " v. algida Grun, 1884. 74, C./5.
" decrescens Gr. ASA. 61/7. 8; - Oest. 1895; 458 8/95.
" " v. polaris, Grun. 1884. 80, C/11.
" " v. repleta, Grun. 1884. 80, C/18.
" granulosus, Gr. Cl & Gr. 1880. 113, 7/130.
" hyperboreus, Gr., Cl. 1883 489; 1896? p. 10.
" josefinus, Gr. 1884, 75; C/16.
" kryophilus, Gr. 1884. C/21; - Oestrup. 1895; 461.
" lacustris, Gr. 1880 114; Cl. 1883 489.
" " v. marina Gr. Cleve, 1883, 489.
" macroporus, Gr. 1884, 84, D/25.
" marginatus, Gr. Oestrup 1895; 459.
" minor v. quadripartita, Oestrup 1895; 459, 8/93
" normanii Ehrg. Oestrup. 1895, 459; 1897, 344.
" - " v. Karsana Grun. Cl. 1883, 488.
" - " v. frigida, Grun. Cl. 1883. 488.
" payeri, Grun, 1884. 80, C./13, 13.
" " v. subrepleta, Grun. 1884. 80, C./14, 15.

5-21.

Coscinodiscus pellucidus Gr. Cl. 1883, 488; Osl. 1899, 460.

" polycanthus, Gr. 1880. 12, 7/127: Cl. 1883, 488; Osl. 1899. p. 460; 1897. 344; Gran. 1900c p. 56.

" septentrionalis, Gr. 1884, 4/33; Osl. 1899, 461; 1897, 345; Gran. 1900c p. 56.

" subtilis Ehr (1854, 18/36); Cl. 1873a 6; 1883, 488; Osterf. 1903, 566.

" " v. sibirica, Gr. 1880. p. 115.

" " v. glacialis, Gr. 1884, 82, C/27.

" weyprechtii, Gr. 1884, 78, C/8.

19. Actinocyclus Ehrenbergii, Ralfs.

Pritch. 1861. 834.

20. Asteromphalus hookeri, Ehr.

1854. asteromphalus hookeri; Ehr. p 200/3.

1896? " atlanticus, Cl. p 5.

1897a " " Gran, 30, 4/63

1900 " hookeri, Cl. p 20, Anm.

21. Corethron criophilum, Cast.

1886. Corethron criophilum, Cast. 85; 21/12, 14, 15.

1887 " hystrix, Hensen. 89, 5/49.

1897b " " Cl. 298 f. 15.

1900. " criophilum, Cl. 929.

22. Lauderia glacialis (Gr) Gran.

1884 Podosira hormoides v. glacialis, Grun. 108, 5/32.

1896a " glacialis, Cl. 12, 2/17–20.

1900.b Lauderia glacialis, Gran, III, 9/10–14.

522.

23. Lauderia borealis, Gran.

1897a Lauderia annulata, Cl. 2/13-15. (nec 1873a p. 8)
1900b " borealis, Gran, 110, 9/5-9.

24. Detonula confervacea (Cl.) Gran.

1896a Lauderia confervacea, Cl. 11, 2/21.
1900b Detonula confervacea, Gran, 113

25. Dactyliosolen tenuis (Cl.) Gran.

1897b. Dactyliosolen mediterraneus, H. Per. v. tenuis Cl. 300 f 14.
1902. " tenuis, Gran, p. 172.

26. Leptocylindrus danicus, Cl.

1889 Leptocylindrus danicus, Cl. 54
1894 " " Cl. p 15, 2/4, 5.

27. Guinardia flaccida (Cast) H. Peragallo.

1897 Eucampia striata v. maxima, Stolterf., p. 635.
1886 Rhizosolenia (?) flaccida. Cast. 74, 29/4.
1887 Pyxilla baltica, Hensen, 67, 5/33, 34 (nec Brunow).
1889 Rhizosolenia castracanei, Cl. p 2.
1892. Guinardia flaccida, H. Per. 107, 1/3-5.
1894 Hensenicella baltica, Schütt, bei V. Zoni Ly. II. 3. p. 1425.
1896. Guinardia baltica, Schütt, 84, f. 138.

28. Rhizosolenia fragilissima, P. Bergon.

1900 Leptocylindrus danicus, Schütt. 504, 12/13-24, 33 (nec Cl.)
1903a Rhizosolenia fragilissima, P. Bergon, 49, 4/9, 10.
1903 " delicatula, Osten f., 368 f. 123 (nec Cl).

523. 29. Rhizosolenia faeroënsis, Oslsmf.

1899. Rhizosolenia cylindrus aff., Oslsmf., p. 55.
1900 " delicatula, Oslsmf. 5-3 (in part) (non Cl.)
1901 " " Gran, 172, (non Cleve).

30. Rhizosolenia stolterfothii, H. Per.

1879. Encampia striata, Stollenf. 835.
1887. Pyxilla styliformis, Hensen, 88, 57/36?
1888. Rhizosolenia stolterfothii H. Per. 6/44.

31. Rhizosolenia setigera, Brightw.

1858. Rhizosolenia setigera, Brtw. 95, 5/7.
1882. Pyxilla baltica, Grun. V. N.S. 83/1.2.
1887 Rhizosolenia setigera, Hensen, 85, 57/38.
1900 " hensenii, Schütt, 570, 12/25-27.

32. Rhizosolenia shrubsolei, Cl. 1881. 26.

V. N.S. 79/11-13; 1892. N. Perag. 114, 5/8, 9.

524. 33. Rhizosolenia styliformis, Brtw. 1858, 5/5a-d.

V. N.S. 78/1-5; 79/1.24; — N. Perag. 1892, 111, 4/1-5; — Gran. 1902, 173, 1/1-9.

34. Rhizosolenia semispina, Hensen.

1882. Rhizosolenia setigera, V. N.S. 78/7 (non Brtw).
1887 " semispina, Hensen, 84, 5-39.
1892. " setigera, N. Perag. 4/12, 14.
1897 " semispina, Cl. 300, 8/13.
1900 " setigera, Schütt, 572, 12/34, 35.

35. Rhizosolenia Robertsii Bailey. XVII f. 9.10.

Cl. 1883, 6/69. — Grun. 1884, 5/48-50; — N. Perag. 552, 114, 5/10.

527. 36. Rhizosolenia alata, Btw.

1858 Rhizosolenia alata, Btw. 95, 5/8.
1881. " (alata var?) gracillima, Cl. 26, 6/78.

37. Rhizosolenia obtusa. Hensen.

1887 Rhizosolenia obtusa, Hensen, 86, 5/41.
1897 " alata v. truncata, Gran. 6, 4/67.
1897a " obtusa, Cl. 25.
1903 " " Oslenf. 569, f. 125.

528. 38. Cerataulina bergonii, H. Perag.

1889 Zygoceras? pelagicum, Cl. 54.
1892. Cerataulus (Cerataulina) bergonii, H. Per. 103, 13/15, 16.
1894 " bergonii, Cl. 11, 1/6.
1896. " " Schütt. 95, f. 165.
1900 " " Schütt 508, 12/45-47.
1903 " " Oslenfeld 570, f. 126.
1903a " " P. Bergon 86, 2/9-11.

39. Ditylum brightwellii (West) Grun.

1858. Triceratium undulatum, Btw. 153, 8/1. 3, 4
1860 " brightwellii, Wash, 149, 8/1.5.8.

40. Eucampia groenlandica, Cleve.

1896b Eucampia groenlandica, Cl. 10, 2/10.

41. Biddulphia aurita (Lyng) Bréb.

1819. Triceratium auritum, Lyng. 182, 62/D.
1830-32 Odontella aurita, Ag. 56.
1838. Biddulphia aurita, Bréb. p. 12.
1882. " " V. H. S. 205, 98/4-9.

42. Biddulphia mobiliensis, Bail.

1845. Biddulphia mobiliensis, Bail. 336 f 4.
1856 " Bailey, W. Sm. 50, 45/322.
1864 Denticula mobiliensis, Grun. p. 7.
1903b Biddulphia mobiliensis, P. Bergon.

529. 43. Chaetoceras atlanticum, Cl.

1873a Chaetoceras atlanticum, Cl. II. 2/8.
1882. " atlanticum v. Lumaricus Gr. V. 185. 81/6.
1886 " dispar, Cash. 76. 8/6.
1895 " compactum, Schütt 46 f. 23

f. audax (Schütt) v. n. Gran. XVII f. 8.

1895 Chaetoceras audax Schütt, 47 f. 25.

530 44. Chaetoceras convolutum, Cash. Fig. 1.

1886 Chaetoceras convolutum, Cash. p 78.
1897a " brightwellii Gran, 10, 1/11a (non Cleve)
1897 " criophilum, Cl. 20, 1/6 (non Cash)
1901 " convolutum, Jörgensen, p. 22.

531. 45. Chaetoceras densum, Cl. Fig. 2.

1873a Chaetoceras boreale v. brightwellii Cl. (pro parte 2/7b-e
1897a " " v. densa, Cl. 20, 1/3, 4.
1901 " densum, Cl. 299.

532. 46. Chaetoceras criophilum, Cash. Fig. 3.

1886 Chaetoceras criophilum, Cash. p 78.
1897 " peruvianum, Van Heurck, 260, 3/5-7.
1901 " criophilum, Jörgensen, 20

Chaetoceras criophilum f. volans (Schütt) Fig. 4.

1895. Chaetoceras volans, Schütt, 45, 5/20.
1897[b] " currens, Cl. 298, f. 8.
533. 1901 " volans, Cl. p. 313
1902 " peruvianum f. volans, Ostenf., 238.

47. Chaetoceras boreale, Bail. Fig. 5.

1854 Chaetoceras boreale, Bail. 8, f. 22, 23.
1873[a] " " v. brightwellii, Cl. 12, f. 7a.
1897[a] " " Cl. 20, 1/1.
1897[a] " " v. brightwellii, Cl. 20, 1/2.

534. Chaetoceras boreale f. solidaria Cl. 1897-b. p. 299.

535. 48. Chaetoceras decipiens Cl. XVII f. 1–6.

1873[a] Chaetoceras decipiens, Cl. 11, 1/5.
1880 " " v. concreta, Grun. Cl. & Grun. p. 120.
1883 " concretum, Engler p. XI.
1895 " grunowii, Schütt, 43, f. 14[a b].
1897[a] " decipiens, Gran, p. 13, 1/2,3, 3/34.

536. Chaetoceras decipiens f. singularis, n. f. XVII f. 7.

538. 49. Chaetoceras mitra (Bail) Cl.

1856 Dicladia mitra, Bail, 4, 1/6.
1873[a] " groenlandica, Cl. 12, 2/10.
1896[a] Chaetoceras mitra, Cl. 8, 2/1.2.

50. Chaetoceras teres, Cl.

1896[b] p. 36 f. 7; — 1897, 22, 2/10; — Gran. 1897[a] 13, 3/35; 36.

f. spinosa, Gran, 1900[c] 49, 3/10

51. Chaetoceras contortum, Schütt.

1888. Chaetoceras sp. Schütt, 3/4.
1894 " compressum, Cl. 12, 2/3 (barely Lauds)
1895 " contortum, Schütt. 44.
1895 " compressum, Schütt, 43, f. 16a b.
1895 " medium, Schütt 43 f. 15.
1896a " contortum Cl. p. 6.
1897a " " Gran. 14, 2/32.

52. Chaetoceras didymum, Ehr. Cl.

1845. Chaetoceras didymum, Ehr. 45.
1889. " mamillanum, Cl. 55.
539. 1894 " didymum, Cl. 14, 1/3. 4.
1901 " perpusillum, Schütt, Atlas d. Diat. 41 (non Lauds).

53. Chaetoceras laciniosum, Schütt.

1894. Chaetoceras distans, Cl. 14, 2/2, (non Cl. 1873)
1895 " laciniosum, Schütt, 38, Pl. 4, 5 f. 4a b. c.
1896 " commutatum, Cl. 28, f. 9. 16 (non 11)
1897a " laciniosum, Gran. 17. 1/4-7.

54. Chaetoceras breve, Schütt.

1895; Chaetoceras breve, Schütt, 38, Pl. 4, 5 f. 4a b.
1897.a " laciniosum p.p. Gran. p. 17.
1897a " didymum v. hiemalis, Cl. 21, 1/18.
1900 " hiemale, Cl. 25, f. 9.
1900 b " breve, Gran. 121.
1901 " " Ostenfeld, 295 f. 6

55. Chaetoceras constrictum, Gran.

1897a 17, 1/11-13, 3/42.

56. Chaetoceras simile, Cl.

1896 b. 20, 1/1; - Gran. 1897 a 15; 4/55.

57. Chaetoceras diadema (Ehr.) Gran.

1854. Syndendrium diadema Ehr. M. 35; A XVIII. f. 13.
1882. Chaetoceras paradoxum v. subsecunda, Gr. V. N.S. 82 B, 6.
1883 " " v. lüdersii, Engl. 11.
1888. " sp. Schütt. 3/6.
1894 " curvisetum propars. Cl. 12, 1/5.
1895 " paradoxum, Schütt. p. 37.
1895 " clevei, Schütt. 40, f. 8 a b.
1896 a " groenlandicum, Cl. 7. 2/3-5.
540 1896 " ralfsii Schütt. 53, f. 631B (non Clève)
1897 a " diadema, Gran. 20, 2/16-18.

58. Chaetoceras willei, Gran.

1897 a p. 19, 4/47.

59. Chaetoceras holsaticum, Schütt.

1895. Chaetoceras holsaticum, Schütt. 40, f. 9 a b.
1895. " laeve, Schütt. 39, f. 6 a b.
1896 b " baltic'um, Cl. 28, 1/2.
1900 " grani, Cl. 25, f. 7. 8.
1901 " baltic'um, Ostenfeld. ~~29-299~~ 298.
1902 " laeve, Gran. 179.
1903 " baltic'um, Ostenfeld. 576.

60. Chaetoceras pseudocrinitum, Ostenfeld.

1897 a Chaetoceras crinitum, Gran, 22, 4/51 (non Schutt)
1901. " pseudocrinitum, Ostenfeld. 300.

61. Chaetoceras wighami, Brightw.

1856. Chaetoceras wighami, Brtw. 108, 7/19-36.
1896 " buttnicum, Cl. (rei) accordg to Auricellus 14 R.1.
1897a " wighami, Gran. 27, 4/50.
1897a " biconcavum, Gran. 27, 3/46

62. Chaetoceras curvisetum, Cl.

1889 Chaetoceras sp. Schütt. 14/1-7.
1889. " curvisetum, Cl. 55.
1893 " secundum, Schütt 25. (non Cl).
5-41. 1894 " curvisetum, Cl. 12, 1/5.
1895. " cochlea, Schütt 41. 11
1897a " curvisetum, Gran. 22, 2/22. 3/43

63. Chaetoceras debile, Cl.

1894. Chaetoceras debile, Cl. 13. 1/2.
1895. " " Oestrup. 456, 8/89.
1895. " vermiculus, Schütt, 39, f.7a-c.
1897a " debile, Gran 23, 2/14-15.

64. Chaetoceras tortissimum, Gran.

1900 b. 22, 9/25.

65. Chaetoceras furcellatum, Bail.

1856 Chaetoceras furcellatum, Bail, 1/4.
1880. " " Cl & Gr. 120, 7/136-137.
1896a " " Cl. 7. 2/6, 7.
1897 " " Gran. 19, 1/15, 16.

66. Chaetoceras wigoltianum Ostenf. (rei) aftr. Gran 1902, 180.
R. XVII f. 15, 16.

542. 67. Chaetoceras socíale, Lauder.

1864, 77, 8/1; – Cl. 1896[a] 9, 2/9; — Gran. 1897[a] 26, 4, 5-7.

68. Chaetoceras gracíle, Schütt.

1884? Encampia payeri, Grunow, 107, B/17[a-c].
1895- Chaetoceras gracile, Schütt. 42, 4, 13[a-d].
1895- " septentrionale, Oestrup. 457, 7/38.
1896. " " Cl. 9, 2/8.
1897[a] " gracile, Gran. 27.

69. Fragilaria oceanica, Cleve.

1873[a] Fragilaria oceanica, Cl. 22, 4/25.
1880 " arctica Grun, Cl & Grun. 110, 7/124
1884 " oceanica, Grun. 55; B/14[a-h].
1897[b] " " Gran. 20, 1/6-9.

70. Fragilaria cylindrus, Grun.

1884 55 B 13; — Gran. 1897[b] 20, 1/4, 5.

~~71. Fragilaria~~

71. Thalassiothrix longissima Cl & Gr.

1873[a] Synedra thalassiothrix, Cl. 22, 1/24
1880 Thalassiothrix longissima, Cl & Gr. 108.

543. 72. Thalassiothrix nitzschioides, Grun.

1862. Synedra nitzschoides, Grun. 403, 5/18.
1881. Thalassiothrix nitzschoides Gr. r. Ks. 43/7.
1886 " curvata, Cast. 55, 24/6.
1894 " Frauenfeldi, Cl. p. 6. (non Grun)
1900 " " v. nitzschioides, Jörg p. 21.

73. Asterionella Kariana, Grun. XVII Fig. 13.
Cl & Gr. 1880, 110, 6/12; – V.H.S. 52/4–5.

74. Achnanthes taeniata, Grun.
Cl & Gr. 1880, 22, 1/5.

75. Navicula septentrionalis, Oestrup.
1895. Libellus (?) septentrionalis, Oestrup. 4 39, 8/97.
1896a Navicula septentrionalis, Cl. 11, 1/9.

76. Navicula vanhöffeni, Gran.
1897b. 9, 1/1–3.

77. Amphiprora hyperborea (Grun) XVII, Fig. 4.
1880 amphiprora paludosa v.? hyperborea Gr. Cl & Gr. 62 ~~f~~ 5/86.
1894b. " " v. hyperborea, Cl. p. 14.
1896a " (paludosa var.) hyperborea, Cl. p. 5.
1897b " hyperborea, Gran. 10.

514. 78. Nitzschia frigida, Gran.
Cl & Gr. 1880 94, 5/109; – Gran 1897b 10, 1/11; – Vanhöffen 1897, 4/1.

79. Nitzschia seriata Cl.
1883, Nitzschia seriata Cl. 38/75.
1887. Synedra holsatica, Hensen, 91, 5/50
1897b. Nitzschia fraudulenta, Cl., p 300. f. 11.

80. Nitzschia delicatissima, Cl.
1897a 24, 3/22.

81. Nitzschia closterium (Sh) W. Sm.
1839. Ceratoneis closterium, Sh. 64, 4/7.
1853 Nitzschia closterium, W. Sm. 42, 15/120.

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auf dem Dampfer "VALDIVIA" 1898-99.

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CARL CHUN.

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Das Phytoplankton des

Antarktischen Meeres.

70. Melosira hyalina n. sp. p. 70, Pl. 1/1.

" sphaerica n. sp. 70, 1/2.

" Sol. 70 1/3—9.

72. Stephanopyxis turris (Ehr.) Ralfs. 73, 2/1.
Hensen, Plankt. 90. 5/42-44.

Thalassiosira antarctica, n. sp. 73, 2/2.2a, 3.

" excentrica ns. 73, 8/5, 5a

74 Hyalodiscus Chromatoaster, ns. 74, 2/4, 5.

" Kerguelensis ns. 74, 2/6, 7.

" subtilissimus ns. 74, 2/8.

" dubiosus (Lemm. M.S.) = Coscinodiscus dubiosus (Lemm. M.S.) (Janisch. V³ Fig. 10. II.) p. 75. 2/9, 10.

77. Coscinodiscus Schimperi ns. 77. 3/1.

" compressus ns. 77. 3/2.

" non scriptus ns 77. 3/3.

78. Coscinodiscus inornatus ns. 78, 2/9.

" sp. 78, 3/11.

" gracilis ns. 78, 3/4.

" minimus ns. 78, 4/8 a b.

" horridus ns. 78, 57/9 a b.

79 " planus ns. 79, 4/1 a 1 b

" australis ns. 79, 4/2 a, 2 b.

" bifrons Castr. 156, 2/1 . p. 79, 4/3 a 3 b.

" Castracanei n. sp. 79, 4/4.

" chromoradiatus ns. 79, 4/5.

80. " excentricus Sch. 80, 6/5.

" lineatus var asa. 59/31–32. Ralf. 479.
p. 80, 6/7.

" lineatus Sch. 80, 8/2.

" marginato-lineatus Sch. Ralf. 474.
p. 80. 6/6.

" lunicus Jan. Ralf. 475.
p. 80, 6/1.

81. " minutiosus ns. 81, 5/1.

" transversalis ns. 81, 5/2.

" similis ns. 81, 5/3.

" Valdiviae ns. 81 5/4

" spiralis ns. 81. 5/5 a. 5 b.

Cosmodiscus aculoides ns. 81, 6/3, 3a, 3b.

82. " laevis ns. 82, 5/6.

" neglectus ns. 82, 5/7.

" caudatus ns 82, 5/8.

" oppositus ns. 82, 7/5.

" furcatus ns. 82, 4/7.

83. " kerguelensis, ns. 83, 3/7.

" Bowerl. ns 83, 3/9, 9a, 9b.

" grandineus Ralf. 554, 83, 4/2.

" fasciculatus O'Meara var? Ralf. 491. ~~82~~ 83. 3/5 5a.

84. " inclistinctus ns, 84, 3/6.

" stellaris Roy. Ralf. 493., 84, 4/6.

" trigonus ns. 84, 5/10.

" pyrenoidosphorus ns. 84, 5/11.

" nitidus Greg. Ralf. 478, 84. 7/1.

85. " nitidulus Grun. Ralf. 480. 85, 7/2.

" pseudonitidulus. ns 85; 7/3.

" kryophilus Grun. S. J. Ed. 81, 6/21; Ralf. 492, p. 85; 7/4.

" quinquies marcatus. ns. 85; 7/6, 6a.

" inflatus ns. 85; 7/7, 7a.

" incurvus ns. 85, 7/8, 8a.

86 " grandenucleatus. ns 86, 7/9.

" Chunii, ns. 86, 7/10, 10a.

" subtilis Ehr. Ralf. 494. 86, 7/11, 11a.

" filiformis ns. 86. 6/4, 4a.

" Simbirskianus Grun? Ralf. 489. 86. 6/5 5a.

87. " hexagonalis ns. 87, 3/8

" " v. minor, 87, ~~3/8~~ 3/8a.

" decrescens Grun. Ralf. 525; 87, 8/1.

" senarius Schm. Jour Roy. 6/15; Ralf. 525 87, 3/10.

88. Ehmodiscus subtilis 88, 8/3, 3a.

" parvulus ns. 88. 8/4, 4a.

Schimperiella n.g. 88.

Schimperiella antarctica ns. 88, 8/6a 6b.

" Valdiviae ns. 88, 8/7a 7b.

90 asteromphalus Roperianus Ralfs. asa. 38/15, Rall. 657. 90, 8/8, 8a.

" Hookeri Eh. asa. 38/18-20. Rall. 656. / 90, 8/9.

" Brookei Bail. asa. 38/21-23, Rall. 657. / 90, 8/10.

" heptactis Ralfs asa. 38/5-8, Ralfs Rall. 664. / 90, 8, 11.

" regulis ns. 90, 8/12.

" ornithopus ns. 90. 8/13.

" parvulus ns. 90, 8/14.

" hyalinus ns. 90 8/15.

91. Actinocyclus umbonatus. Cast. 145, 4/4. / 91. 9/1.

" antarcticus ns. 91. 9/2

92 " Valdiviae ns. 92, 9/1-3.

" similis ns. 92, 9/4.

" intermittens, ns. 92, 9/5.

" corona ns. 92, 9/6.

" Janus ns. 92, 9/7a b.

" bifrons ns. 92, 9/8a b.

93. " elegans, ns 93, 9/9.

Dactyliosolen antarcticus Cast. 75, 9/7. / 93. 9/10.

" laevis ns. 93. 9/11, 11a.

" mediterraneus H. Perg. 93, 1/8.

95. Rhizosolenia (Eh) Bkw.)

" simplex ns. 95, 8/1. 1a, 1b 1c.

" Torpedo ns. 95, 10/2. 2a

" antarctica ns. 95, 11/1.

96. " Styliformis Bkw. Cast Chall. 71 (R. Dactyliosolen). 24/2 Castracane. Rep. Challenger. 231 v. Lauderia p. 96, 10/5-a b. c. d. e -

/ n semi'spinci Hansen, Plankton. 1883-86. Iran. 1902, Iran. 1904
96, 10/4, 4a, 4b., 9/14,

97. / n truncata ns. 97, 10/3, 3a.
n rhombus ns. 97. 10/6a 6b 6c
/ n curva ns. 97, 11/2, 2a 2b (Nansen-Finch)
/ n alata Btw. (Iran. 1904 p. 527).

98. n wierzejskii Cast. 71, 24/7. 8, 10, 13. / 98, 9/12. 12a, 12b.
/ n bidens ns. 98, 9/13 13a 13b.
/ n imbricata Btw., 98, 11/3. 3a b. c.

99. / n Shrubsalei Cl. (Parag. v/8, 9). 99. 11/4, 4a.
n Chunii ns. 99, 11/5, 5a, b.
n crassa Schimper ms. p. 99. 11/6, 6a b.

101 ✓ Corethron Valdiviae ns. 101. ~~13/ 12, 13/1-10.~~ 12/1-10, ~~13/11-17.~~

104. ✓ n wierzejskii 104, 13/11-17.

115 Chaetoceras atlanticum Cl. (1873, II, 2/8) = C. diadema Cast.
115; 15/9, 9c, 16/1.

116 n ✓ cruciatum ns 116. 15/2.
n Janischianum Cast. 77. (C. dichaeta Ehr.?, & C.
remotus Cl. & Gr. - Lauds Atl.-Plankt. 1900. p. 928)
116, 15/6, 6a b. c.
n ✓ Castracanei ns. 116. 15/1. 1a, b.

117. n ✓ Schimperianum ns. 117. 15/2, 2b, 16/4.
n ✓ radiculum Cast. - / 117 15/3, 3a
n ✓ Chunii ns. 117. 15/4

118. n ✓ pendulum ns. 118?, 15/7. 7a.
n ✓ criophilum Cast. 118, 15/8, 8a b c d e.

119 n ✓ diadema Cast. 119, 16/2.
n ✓ didymum Ehr. var. Iran. Protophyta 1897. 16, 3/37. 38
119, 16/3a, b.
n ✓ neglectum ns. 119, 16/5. 8.

120. Chaetoceras warchalium, Laud. 120, 16/6.
Eucampia Ehr. = Moelleria Cl.
Eucampia antarctica Cast. (98, 18/8) 120, 11/8, 8a
" balaustium Cast. 120, 11/7, 7a.
121 Triceratium archeri cum? 121, 16/7, 7a b c.
Biddulphia mobiliensis Bail. 121, 17/1.
122. " striata ms. 122, 17/2, 2a b.
" parallela? Cast. 122, 17/4.
" contorta, ms 122, 17/5.
~~Eucodia~~.
Dragylaria antarctica (Schwartz) Cast. = D. kerguelensis O'Mear.) 122, 17/7, 7a b c d 10.
123. " sp. 122, 17/9, 9a.
" sp. 122, 17/8.
124 Synedra sp. 124, 17/13.

Thalassiothrix longissima Cl Grv. Arct. Diat. 108; Kaustr. Diat der Kieler Bucht. p. 28. — 124, 17/12., 12a b c.
" (antarctica, Schimper. p. 124, 17/12.)
125. Grammatophora kerguelensis ms. 125, 17/14, 14a b c.

Entopyla kerguelensis, ms. 125, 17/15, 15a b. c. d.
126. Navicula, directa v. oceanica n.v. 126. 18/1
" antarctica ms. 126, 18/2.
" pellucida ms. 126. 18/3.
" oceanica ms. 126. 18/4

127. Pleurosigma directum Grun. Cl D. Arct. p. 53; Perag. 14, 5/29. 127, 18/5.
Scoliopleura pelagica ms. 127, 18/6.
128 Dactyliosolen antarctica Grun. Arct. d. p. 64. Cl. Raw. I. 24 (= Chaetoceros Lauderi Ralfs. Stauroneis glacialis Cast. Chall. 24, 27/11 —— 128, 18/7.

Cocconeis similis ns. 128, 18/8.

Nitzschia Gazellae ns. 128, 18/9.

" sp. 128, 18/11

129 " pelagica ns. 129. 18/10, 10a b.

" seriata Cl. var. 129, 18/12.

Chunniella u.g. 129.

130. Chunniella sigmoidea ns. 130, 18/13, 13a b.

" naviculoides ns. 130, 18/15.

" antarctica ns. 130, 18/14.

Phaeocystis antarctica ns. 130, 18/16, 16a. 16b. (Ostenfeld, Algen, Bd. I p. 13— 130, 18/16.

" globosa ~~ns~~ Scherffel, A.: Wissenschaftl. Meeresuntersuchungen, N.F. Bd IV, Abt. Helgoland, 1900. + G. Senn, Haptophyceae in Engl.-Prantl p. 159.

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157. Coscinodiscus parvulus, ns. 157. 24/1.
152. " centrolineatus ns. 152, 24/2.
" rese. Wall. Ball. 568. - 152, 24/3, 3 a b c (*)
" " var? 152, 24/4, 4 a, b.
153. " cornutus ns. 153, 24/5. 5 a b c.
" Simonis ns. 153. 25/6. 6 a
154. " rotundus ns 154 26/18.
" stephanopyxioides ns. 154, 25/7, 7 a.
" Victoriae ns. 154, 25/8.
155. " janischii a.a. 44/3, 4, Jan Say. 4/4; Ball. 543. 155; 25/9, 9 a.
" varians ns. 155, 25/10.
" " v. major 155. 25/10 a
" lentiginosus Jan. Ball. 491. 155, 26/11.
" solitarius ns. 155. 26/12.
156 " symmetricus Lem. v. tenuis ns. 156, 26/13.
" intermittens ns. 156. 26/14.
" guineensis ns. (non Brun) 156, 26/15.
" convergens ns. 156. 26/16.
157. " rectangulatus ns. 157. 26/17.

Actinocyclus dubiosus ns. 157. 27/1. 2.

Planktoniella Wolleszekii, Schmidt. 157. 27/3, 4.
Siehe E.-P. p. 218.

158. Actinocyclus vulgaris Schm. 158, 27/5, 6.
" undulatus (Bail). 158, 27/7.

(*) = Antelminellia gigas. Schütt.

Asteromphalus stellatus, Ralfs 158, 28/1.

159. " heptactis Ralf. 159, 28/2.

Stephanosira n.g. 159

Stephanosira decussata ns. 159, 28/3.

Auliscodiscus Victoriae ns. 159, 28/4, 4 a b c.

160. Dactyliosolen borealis ns. 160, 29/1, 1a.

" meleagris n.s. 160, 29/2. 2a.

161. Guinardia Blavyana H.Per. 161, 29/3. 3a.

" flaccida HP. 161, 29/4.

" Victoriae ns. 161, 29/5.

Lauderia borealis Gran. 161. 29/6.

162. Cerataulina Bergonii HP. 162. 29/7.

Rhizosolenia stricta ns. 162, 29/11. 11 a b.

" amputata, Ostenfeld, Koh Chang. ~~III~~ p. 227. f. 4.

163. " delicatula O. (Ostenfeld, Jacques p. 568; Gran. Nordisches Plankt. XIX. p. 48.) 163. 29/8.

" Stolterfothii HP. 163. 29/9. 9a.

" robusta Norman, 163, 29/10, 10 ab.

164. " semispina Hensen, Karsten, (Phytoplankt. des antarktischen Meeres, p. 96) 164, 29/13

" curva = R. curvata, O. Zacharias, Archiv. für Hydrobiolog. Bd I. 1905, p. 120.

" quadrijuncta H.P. 164, 29/12, 12a.

" Imperei. HP. 164. 30/15, 15 a b.

" Castracanei HP. 164. 30/14, 14 a b c.

165. " sp. 165, 30/16, 16a. (= R. Karstenii Nat. Abh. 318/9)

" ~~Rhombus~~

166 Chaetoceras atlanticum v. 166, 31/1.

" " densum Cl. Gran. nord. Plankt. 191 p. 67. 166, 31/2. 2a.

" " coarctatum Laud. 166, 31/3a 3b.

" " peruvianum Btw. 166, 31/4.

" " " v. Victoriae n.v. 166. 31/5 5a b.

167. " " Lorenzianum Grun. 1863. 167. 5/13. 167. 31/6.

" " decipiens Cl. var 167. 32/9.

" " tetras ns. 167. 32/10, 10a

" " capense ns. 167. 31/7, 7a.

168. " " didymus Sh. 168, 32/11. 11a b.

" " strictum ns. 168, 32/12,

" " (difficile Cl?) or n.s. 168, 32/14.

" " seracanthum Gran (Nordisches Plankt. XIX, p. 85) 168, 33/15.

" " Ralfsii Cl. (Java. 10, 3/15). 168, 33/16, 17, 18.

169. " " furca Cl. 169. 32/13. 13a b.

" " diversum Cl. (Gran. Nordisch. Plankt. p. 87) 169, 33/19.

170. " " subtile Cl. (Gran Nord. Plankt. p. 88) 170, 33/20. 20a b

Bacteriastrum Laud. varians, 170, 34/1, 1a ac.

" elongatum Cl. 170, 33/23.

" criophilum ns. 170. 33/22

171. " minus ns. 171, 33/~~22~~. 21.

Biddulphia Agulhas ns. 171. 28/5, 5a

Lithodesmium Victoriae ns. 171, 38/6 6a b.

172 Bellerochea ~~Vic~~. malleus V.H. 172, 38/7, 7a.

Hemiaulus Hauckii Grun. 172, 38/9.9a.
Climacodium biconcavum Cl. 172, 38/10
173. Fragilaria capensis ns. 173, 30/17.

Synedra stricta ns. 175. 30/19.
" auriculata ns. 173, 30/18.18a.b.
Thalassiothrix acuta ns. 173 30/20.20a.

174 Septroneis Victoriae ns. 174. 28/8, 8ab.
Navicula corymbosa Ag, Kaust. d. Kies. Bacill. p. 54. 174. 34/2.2ab.
" humerosa V. contricta, Kaust. d. Kies. Bacill. p. 57; Cl. Mereschk. "Notes on some recent publications" Ann. Mag. Nat Hist Ser 7. Vol X. p. 28. 174. 34/3.
" membranacea Cl. var? 174, ~~39~~ 34/4.
175 Pleurosigma capense ns, 175, 39/5, 5ab.
" secundum ns. 175; 34/6. 6a.
176. Rhoiconeis decussata ns. 176. 34/7.

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360 Coscinodiscus inscriptus ns. 360, 36/3

361. " excentricus var. nv. 361. 37/1, 2.

362 " (rex Wall) = Antelminellia gigas (Cleve) Schütt
Atl. Phy. 152. 24/3, 4. N°. 362.

" alpha ns. 362, 35/8.

" Beta ns. 362. 36/1.

363. " Gamma ns 363, 36/4.

" delta ns. 363, 36/5. 5a

" subtilissimis ns (non Ehr.) 363. 36/2, 2a.

364. " bisulcatus ns. 364, 35/9. 9a

" noduliger Jan. Rabh. 520. 364 36/6.

" Theta ns. 364, 37/5, 5a.

365 " Zeta ns. 365, 37/4, 4a

" difficilis ns. 365; 35/5

366. " Symmetricus Lew. var? Rabh. 490. 366, 35/6.

" Eta ns. 366, 37/3, 3a.

" incertus ns. 366, 35/2, 2a

" Kützingii, Sch. 366, 35/1

367. " subasciculatus ns. 367. 35/4. 4a

" increscens ns. 367. 35/3, 3a

" gigas, Ehr. (Cleve Pr. J. K. p. 76 - Rabh. 541: Ata. 44/1)
367. 35/7. 7a

369 Valdiviella formosa Schimper, 369. 39/12, 40/13.

Hyalodiscus parvulus ns. 369, 38/5-a. b. c.

370 Actinocyclus sp. 370. 38/6.

Asteromphalus Wyvillii Cast. Chall. 134, 5/6. 370. 38/4.4a

371. Asterolampra marylandica var ~~371~~. (Ralf. 641, ASA. 137, 19-21.)
371, 38/1, 1a.

" " var major KP. 371. 53/10

372. " rotula Grun = A. Grunowii, Wallich. Ralf. 643.
372, 38/2.

Coscinosira destrupii, Ostenfeld 372, 37/6, 6a.

373. Skeletonema costatum, Grun. 373. 46/6.

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